



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,290	03/15/2004	Ichiro Fujimori	13912US05	3052
23446	7590	01/25/2005	EXAMINER	
MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			CAO, PHAT X	
			ART UNIT	PAPER NUMBER
			2814	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/801,290

Applicant(s)

FUJIMORI, ICHIRO

Examiner

Phat X. Cao

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1 and 5-12 are rejected under 35 U.S.C. 102(e) as being anticipated by McCormack et al (US. 6,395,591).

Regarding claims 1, 5, 8 and 9, McCormack (Fig. 2) discloses a system for reducing noise in a chip, the system comprising: a substrate 10 doped with a first dopant; a first well 12 disposed on top of the substrate; a second well 18 and a third well 22 or 16 that are both disposed within the first well 12; a first transistor 29 disposed in the second well 18; a quiet voltage source 26 (column 3, lines 50-55) connected to a body of the first transistor 29; and a second transistor 30 or 28 disposed in the third well 12; wherein the body 19 of the first transistor 29 having a conductivity of P type which is

Art Unit: 2814

resistively coupled to the second well 18 also having a conductivity of p type, and wherein the first well 12 is a deep well.

Regarding claim 6, if assuming the second transistor is the transistor 28, then the second transistor 28 comprises a noisy voltage source 24 (column 3, lines 60-65), wherein a body 17 and a source of the second transistor 28 are both coupled to the noisy voltage source.

Regarding claim 7, if assuming the second transistor is the transistor 30, then the N type body 22 of the second transistor 30 is capacitively coupled to the substrate by the first well 12 made of P type conductivity.

Regarding claims 10-12, if assuming that a first dopant is a N type and a second dopant is a P type, then McCormack also discloses the first well 12 doped with a second dopant (P), the second well 18 doped with a second dopant (P), and the third well 22 doped with a first dopant (N).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormack et al in view of Vinal (US. 5,151,759).

As discussed above, McCormack discloses the first transistor 29 being a NMOS

and the second transistor 30 being a PMOS transistor. McCormack does not disclose the first transistor being a PMOS and the second transistor being a NMOS.

However, Vinal teaches the converting of a NMOS transistor to a PMOS transistor by exchanging N for P and P for N (column 34, lines 41-47). Accordingly, it would have been obvious to convert the first transistor 29 from a NMOS to a PMOS and the second transistor 30 from a PMOS to a NMOS because as taught by Vinal, the NMOS transistor device is analogous to the PMOS transistor device, with the device operational polarity and doping types reversed.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCormack et al in view of Puar et al (US. 6,356,497).

McCormack does not disclose a noisy voltage source coupled to a source of the first transistor 29.

However, Puar (Fig. 5) teach a system for reducing noise in a chip by connecting a noisy voltage source 38 to a source of the transistor and a quiet voltage source VDD to a body (N+) of the transistor (column 4, lines 59-65). Accordingly, it would have been obvious to connect the source of the first transistor 29 of McCormack to a noisy voltage source (i.e., external devices) in order to receive/transmit the data from the transistor to the external devices.

### ***Response to Arguments***

6. Applicant argues that a quiet ground potential as discloses in McCormack is not a quiet voltage source as claimed because a ground is not a voltage source.

This argument is not persuasive because as defined by Applicant, a ground is a

voltage source. Specifically, Applicant states on page 2 of specification, lines 1-2:

**"A voltage source Vss 7 having a ground ...";**

and on page 6 of specification, line 8:

**"A voltage source Vss 170 having an electrical ground ..."**

Furthermore, the new reference issued to Yoo is cited to show that a ground (GND) being defined by one skilled in the art is "a ground voltage source GND" (see "GND" in Fig. 2 and column 1, lines 61-64). Therefore, a quiet ground potential as disclosed by McCormack is a quiet voltage source.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phat X. Cao whose telephone number is (571) 272-1703. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PC  
January 21, 2005

  
PHAT X. CAO  
PRIMARY EXAMINER